## Abstract

This invention relates to aqueous-based oil well drilling fluids containing a starch polymer derived from a starch having an amylose content of at least 50% by weight. The starch polymers provide high temperature fluid loss performance while having a minimum impact on viscosity build when incorporated into well drilling fluids. They may also be used in other applications for which cellulosic polymers have heretofore been employed because of their high temperature tolerance and minimum impact on rheological properties compared to conventional starch polymers.